The Medication REACH Program

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Needs Assessment

Medication non-adherence:

- 20-50% of patients do not take prescription medications as directed (1)
- 36% of Americans have basic or below basic health literacy (2)
- Costs estimated between $100-$300 billion dollars annually. (3)

Medication reconciliation:

- 50% of all hospital related medication errors & 20% of adverse drug events attributed to poor communication at transitions of care. (4)
- 30-70% occurrence of medication discrepancies at hospital admission. (5)

Emerging Evidence:

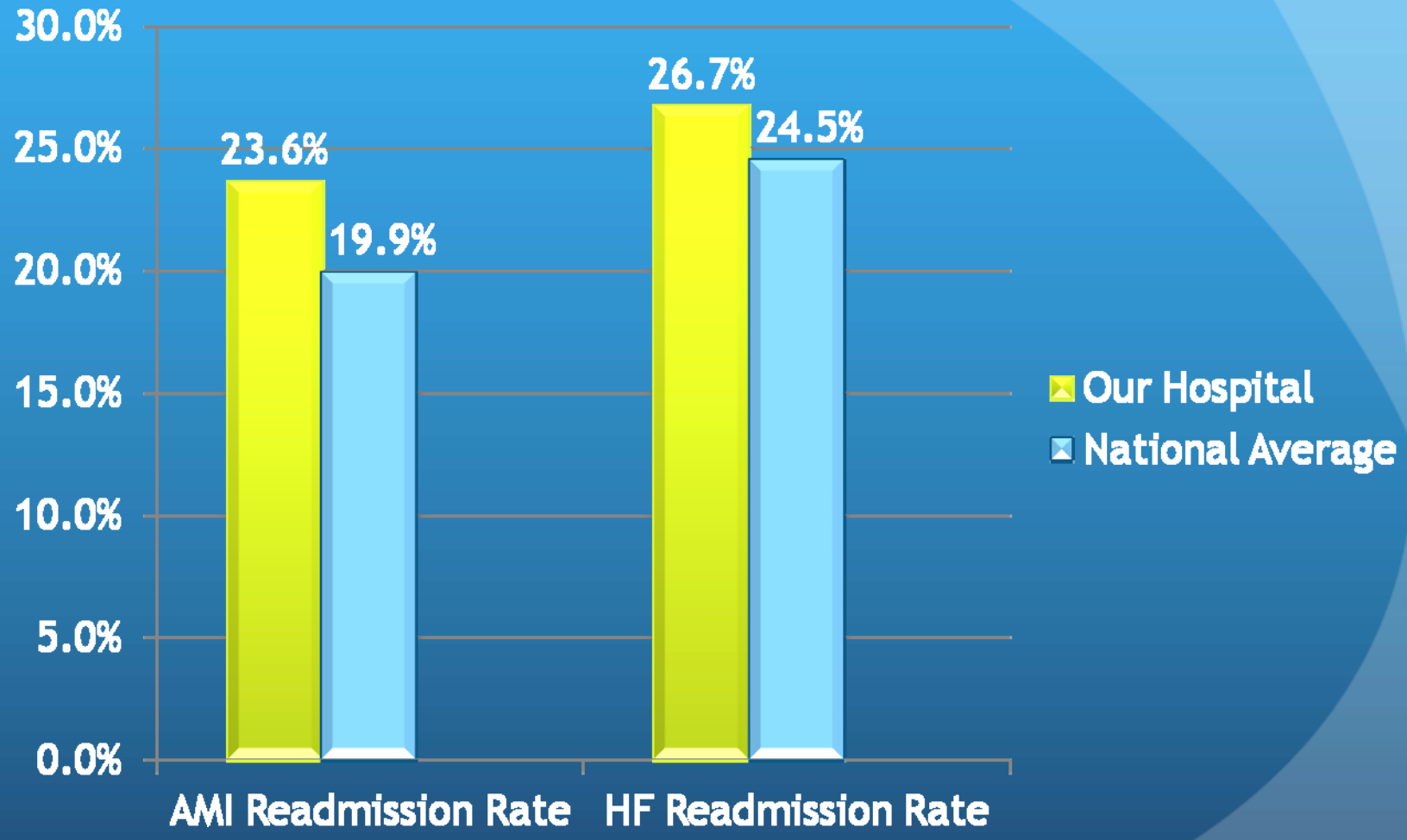
- Patients receiving detailed patient centered instructions, comprehensive discharge planning, and post discharge reinforcement are 30% less likely to be readmitted. (6)

Medication REACH Program

Objective: to enhance the patient discharge process through multi-disciplinary communication and direct pharmacist involvement in an effort to reduce adverse medication events, and hospital readmissions

- Validate medication **RECONCILIATION**
- Deliver patient centered **EDUCATION**
- Resolve medication **ACCESS** issues during transition
- Coordinate a comprehensive **COUNSELING** approach
- Equates to a **HEALTHY** compliant patient at home

Baseline Data



2009 U S Department of Health and Human Services Medicare Hospital Tool

Medication REACH Program

Methods:

- IRB approved
- Prospective design
- October 2010 to June 2011

Inclusion Criteria:

- ≥ 18 years of age
- ≥ 5 medications
- > 1 chronic condition
- 48 hours of hospitalization
- Discharges to home
- Admission to telemetry/cardiac care unit

Exclusion Criteria:

- Admission to GMF
- Discharge to SNF

Medication REACH Program

Workflow Process:

- Patients identified through discharge rounds
  - Multidisciplinary team: care managers, nurses, medical residents, physician assistants
- Screening completed by pharmacy resident/s
  - Collect demographic information
  - Contact information
  - Insurance information
  - Obtain active medication list
  - Assess the patient
    - Health literacy
    - Compliance
- Complete REACH Intervention

Medication REACH Program

Reconciliation

- Compare home, hospital and discharge medication lists
- Verify accuracy and completeness

•Opportunities for involvement

- Collaborate and communicate with medical team
- Medication related interventions
  - Optimization of therapy
  - Deletion of unnecessary therapy
  - Addition of therapy

Medication REACH Program

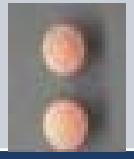
Education

- In person pharmacist medication education
  - Review indications, dosing, and possible side effects
  - Utilize the teach back method

Patient Toolkit (www.ahrq.gov)

- Pictorial-based personalized medication card
- Medication organizer “pill box”
- Medication education leaflets

Example Medication Card

Name	Used for	Instructions	Morning	Afternoon	Evening	Night
Insulin 70/30 	Helps control your blood sugar	**2 X's daily** Store in refrigerator once in use. Keep at room temperature. Check your blood sugar as directed by your doctor.	 15 units Once before breakfast		 20 units Once before dinner	
Prasugrel 	Helps to prevent blood clots, heart attack, stroke, or other vascular events.	1 **X daily**	 Once before breakfast			
Rosuvastatin 	Lowers your cholesterol	**1 X daily**				 Once before bed

http://www.ahrq.gov/qual/pillcard/pillcard.htm

Medication REACH Program

Access

- Verified prescription insurance coverage
- Assisted with insurance formulary restrictions before the patient left the hospital
- Faxed the prescriptions to the patient's pharmacy or the hospital outpatient pharmacy
- Social workers assisted with uninsured patients and patient assistance program enrollments

Medication REACH Program

Counseling Questionnaire

- Two follow-up phone calls
  - Within 72 hours of discharge
  - Close to 30 days post discharge
    - Reinforce compliance of medication regimen
    - Remind patient to follow-up with PCP
    - Identify adverse events
    - Answer questions regarding patient's medications
    - Provide continuity of care
    - Remind patient to refill medications

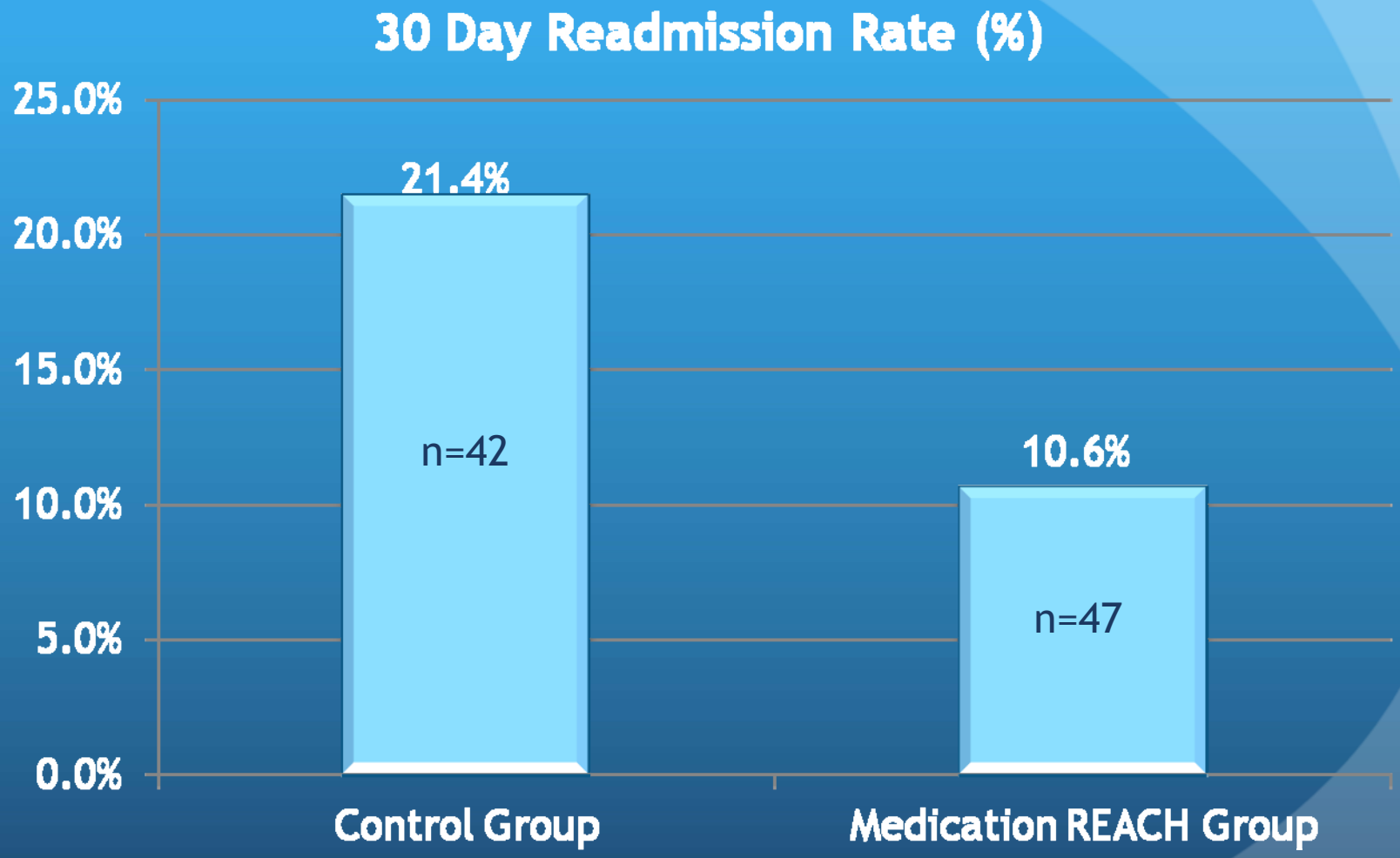
Healthy patient at home

Study Results

*Patient Demographics

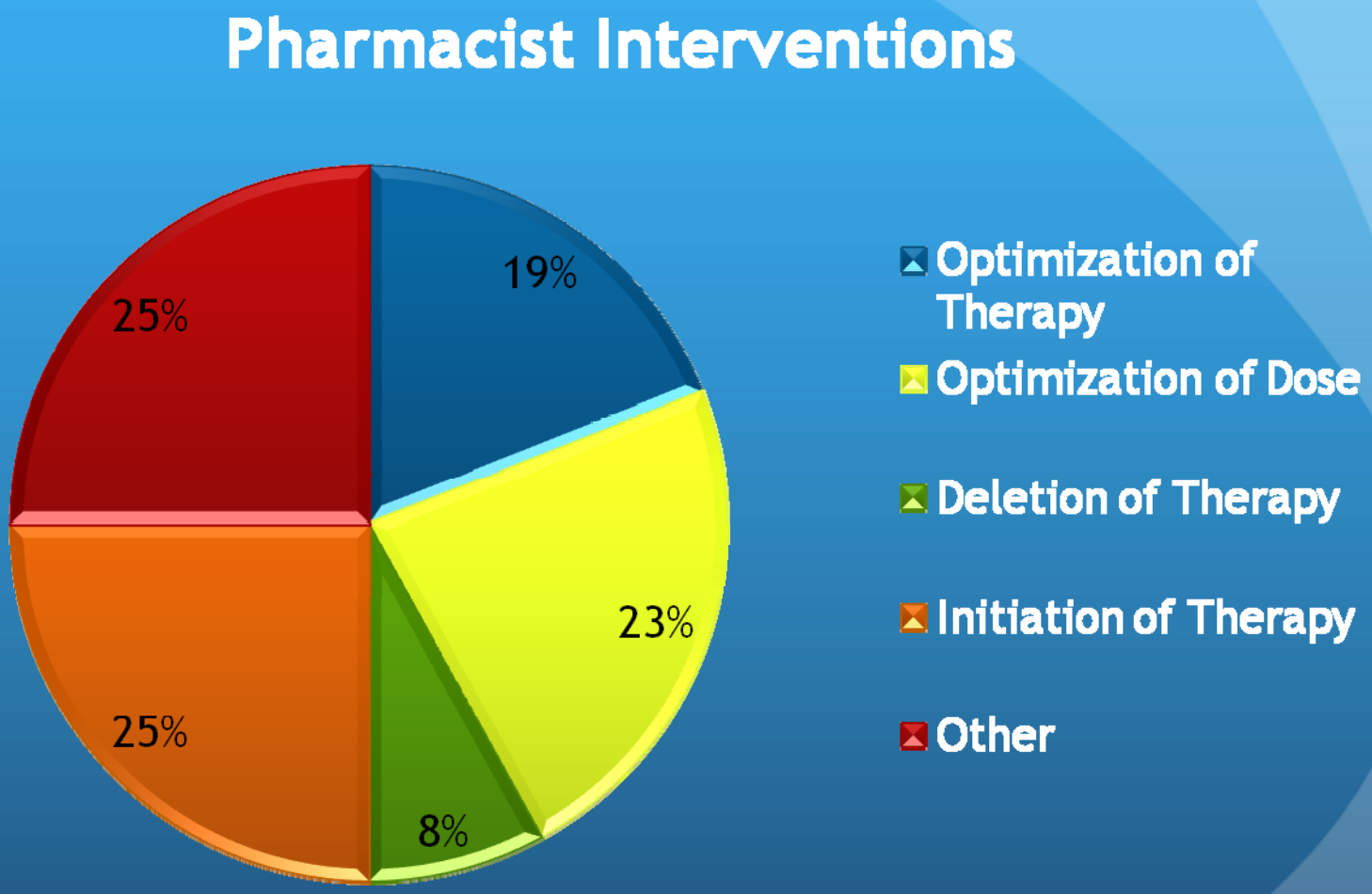
Control Group (n = 42)	Medication REACH Group (n = 47)
Average Age (years): 63	Average Age (years): 59
Males: 52.4 Females: 47.6	Males: 53.2 Females: 46.8
Ethnicity AA: 88.1% White: 9.5% Other: 2.4	Ethnicity AA: 74.5% White: 6.4% Other: 19.1%
PMH CHF: 38.3% DM: 46.8% HTN: 87.2% AMI: 25.5%	PMH CHF: 35.8% DM: 50% HTN: 76.2% AMI: 16.7%
Average Number of Medications: 8	Average Number of Medications: 8

Results



* National Average for AMI = 19.9 % and for HF = 24.5 %

Results

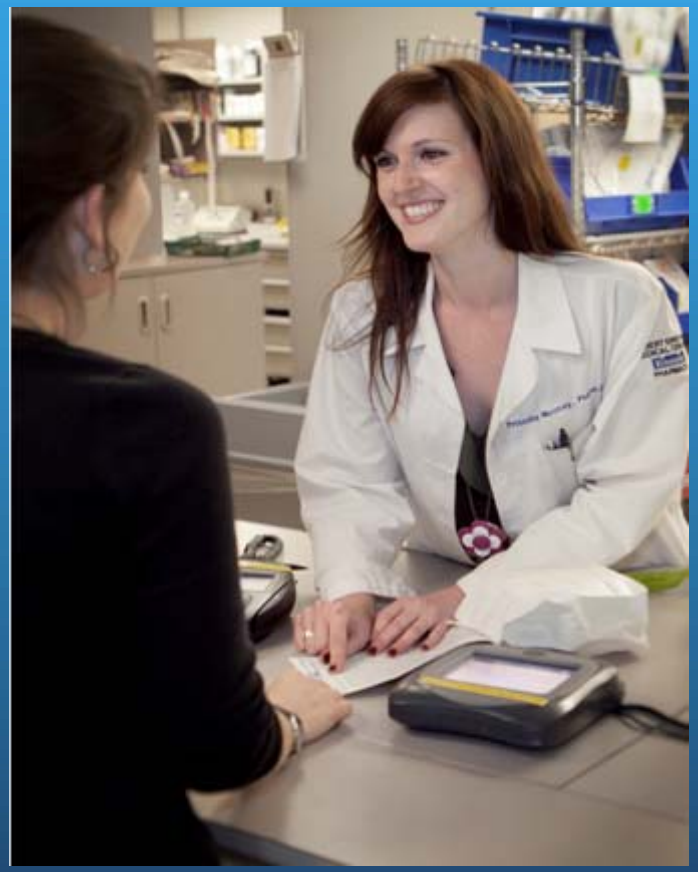


Total number of patients = 47
Total number of Interventions = 59

Lessons Learned

- **Potential for Pharmacists Clinical Interventions**
  - Medication therapy management
  - Medication reconciliation
  - Direct pharmacist to patient education
- **Myriad of Access to Care Issues**
  - Lack of prescription benefit insurance
  - Formulary restrictions on patient's prescription benefit
  - Prior-authorization process or step therapy
  - Co-pay burden
  - Socio-economic barriers
  - Need for outpatient pharmacy services
- **Multidisciplinary collaboration**

Expansion and Enhancements
Discharge Pharmacy Services



Einstein Apothecary

Discharge Pharmacy Service:

- Outpatient pharmacy services discharged patients
- First 30-day fill
- Meet with the pharmacist
- Cost effective medications
- Patient invoice/bill
- Discharge courier service

Benefits:

- Strategic asset
- Return on investment
- Expansion of services

Expansions and Enhancements

A P P L E

Ambulatory Pharmacy Patient Liaison Empowerment

- Innovative programmatic model that addresses the medication "disconnect" at discharge through the use of an advanced practice pharmacy technician.

Goals:

- Expand patient reach allowing increase capacity for pharmacist medication therapy management
- Increase discharge patients prescription capture rate
- Navigate patient access issues more effectively
- Decrease medication related readmissions

Key activities:

- Attends discharge rounds
- Interviews and engages patients
- Identifies access to care issues
- Facilitates prescription processing
- Promotes pharmacy services
- Identifies patients for pharmacist MTM
- Coordinates discharge courier services

Community Care Transitions Program

- CMS Grant focuses on the elderly patient population
- Patients at high risk for readmission
  - ≥50 years of age
  - Moderate to severe functional defects
  - Active behavior or psychiatric health issue
  - ≥4 active co-existing medical conditions
  - ≥6 prescribed medications
  - ≥2 hospitalizations within the past 30 days
  - Low health literacy
  - Documented history of non-adherence to a therapeutic regimen
  - No PCP

Community Care Transitions Program

- Patient navigator
  - Identifies patients at high risk for readmission
  - Educates patient on their disease states
  - Schedules hospital follow up appointments
- Bridge care coordinators
  - One home visit within 72 hours of discharge
  - Weekly phone calls for 30 days

Transition of Care Pharmacist

- Pharmacist optimizes medication regimen
  - Medication reconciliation
  - Follows patient throughout hospital stay
  - Discharge counseling
  - Medication Action Plan (MAP)
  - Ensures prescriptions are filled
    - Pharmacy Technician Discharge Liaison
  - Addresses medication related issues after discharge
    - Bridge care coordinators

Medication Action Plan (MAP)

Goals:

- Blood pressure, cholesterol levels, blood sugar values, A1C
  - Example: Goal A1C: <7%; Your A1C on 4/1/2013: 8.4%

Changes in medication regimen

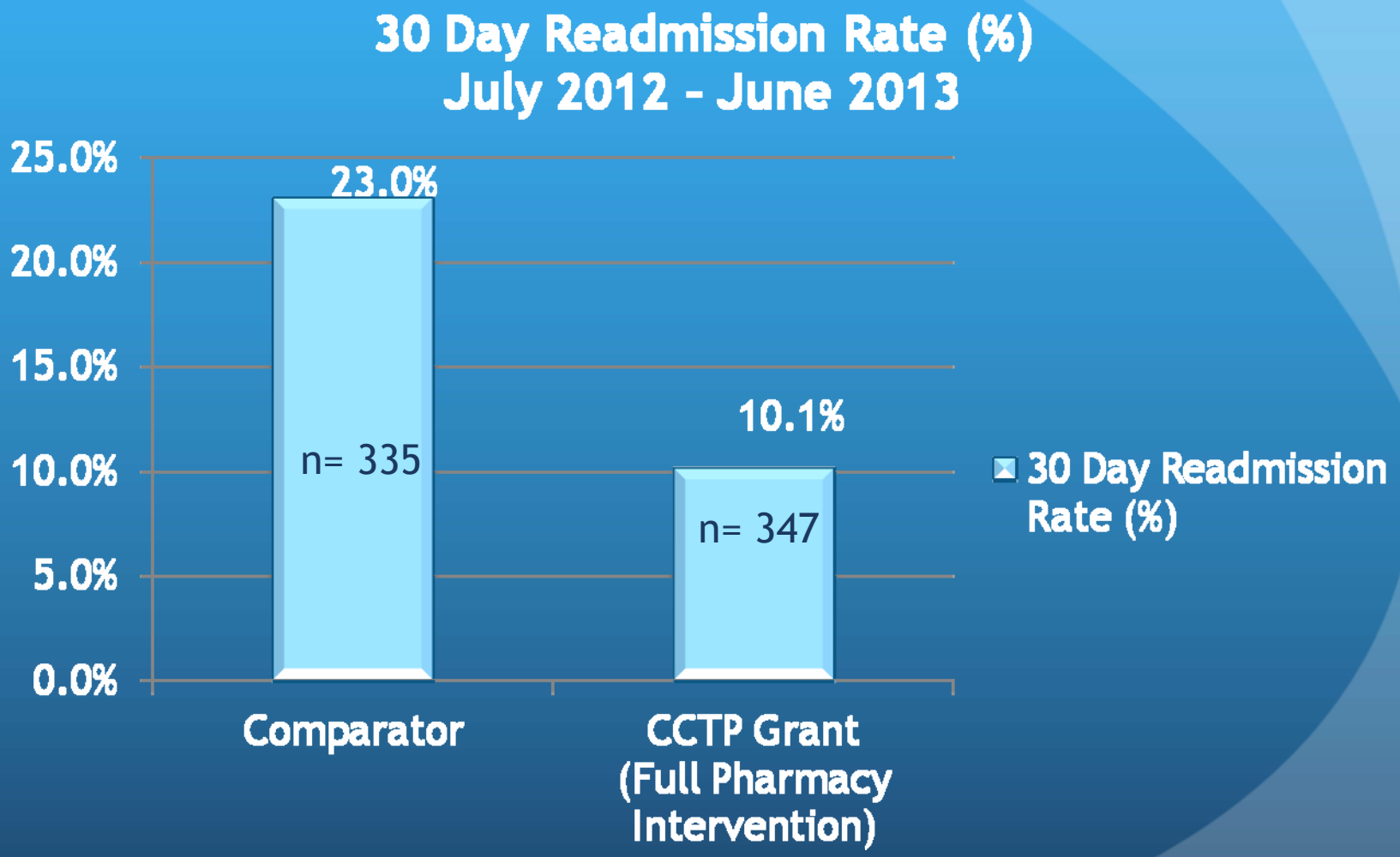
- Addition of therapy, discontinuation of therapy, changes in regimen
  - Example: Before you came to the hospital you were Injecting Insulin glargine 20 units subcutaneously at bedtime. During your hospital stay we found your blood sugar to be high, so we increased your Insulin glargine to 30 units subcutaneously at bedtime. You should now inject Insulin glargine 30 units subcutaneously at bedtime.

Education

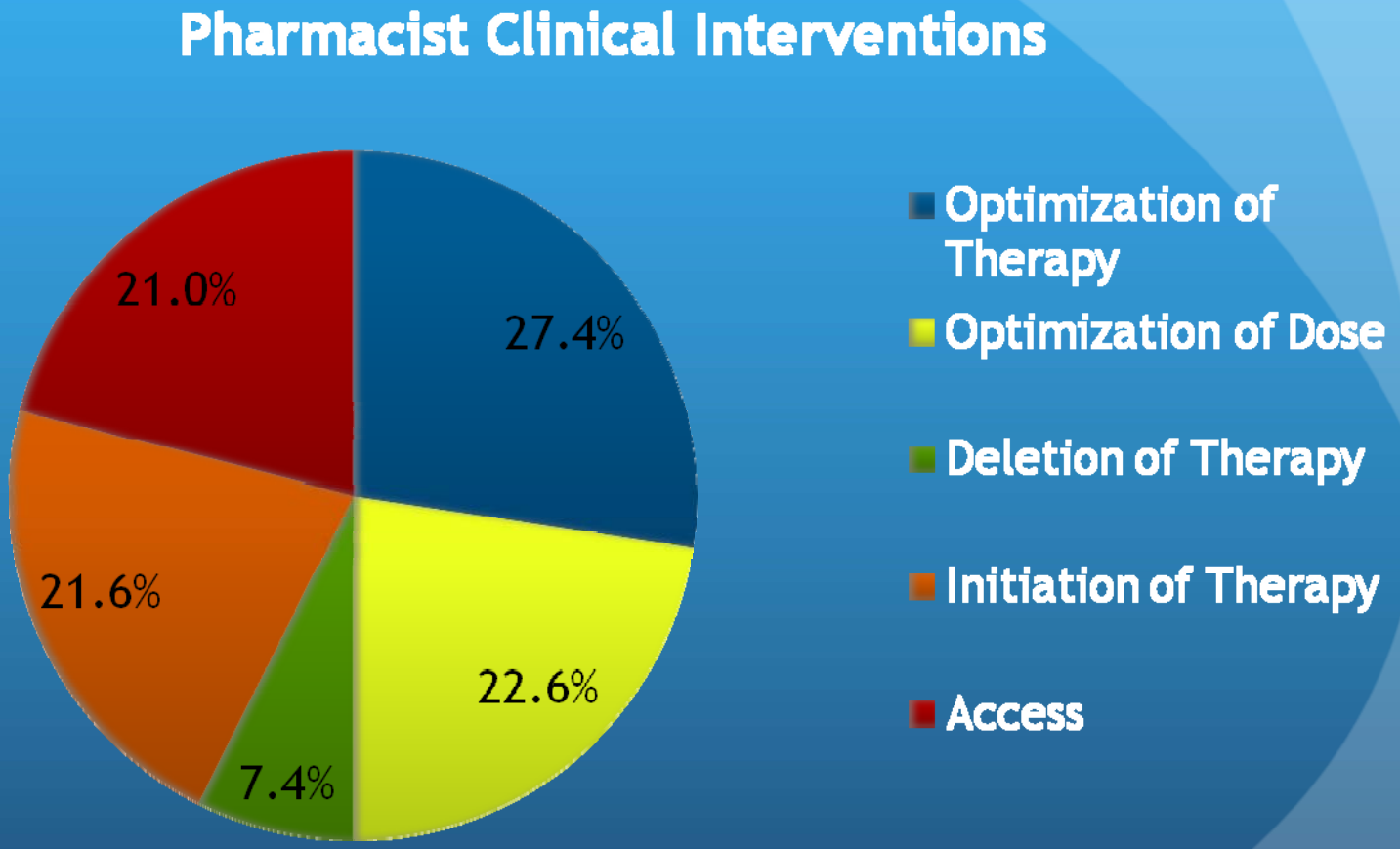
- Indication, administration, adverse effects, interactions, monitoring, adherence, duration of therapy
  - Example: Insulin glargine is used to lower your blood sugar. It is important to look for signs of low blood sugar (<70-80 mg/dL). If your blood sugar drops too low you may feel dizzy, shaky, hungry, or start to sweat. If you experience this it is important to check your blood sugar and see if it is too low. The quickest way to increase your blood sugar is with 3 glucose tablets, half a cup of fruit juice, or 5-6 pieces of hard candy.

Contact information

Community Care Transitions Program



Community Care Transitions Program



Total number of patients = 347
Total number of Interventions = 486

Executive Summary

- **Challenges Addressed-** Medication Related Readmissions
- **Steps/Process Created-** Medication REACH program, Discharge Pharmacy Services, Advanced Pharmacy Technician Role, Transition of Care Medication Management Model
- **Outcomes Achieved-** Sustained 50% or greater reduction in 30-day inpatient readmissions
- **Success Factors/Pre-Requisites-** Commitment of resources to support a medication management care transitions model

Citations

(1) Kripalani, S., et al. Development of an illustrated medication schedule as a low-literacy patient education tool. Patient Education and Counseling. 2007, 368-377.

(2) National Center for Education Statistics. "The health Literacy of America's Adults. Results from the 2003 National Assessment of Health Literacy." 2006.

(3) Walker, T. Understanding patients needs is key to medication compliance. Managed Healthcare Executive. 2001, 11(1), 34.

(4) Burns, A; James, A., et al. "Improving Care Transitions: Optimizing Medication Reconciliation" American Society of Health-System Pharmacists, March 2012: pp1-15.

(5) Jack B. et al. A reengineered hospital discharge program to decrease re-hospitalization. Ann Intern Med. 2009;150:178-187.

(6) Dudas V., et al. the impact of follow-up telephone calls to patients after hospitalization. Am J Med. 2001;111:26S-30S.

(7) Huff, C., Drug counseling at discharge can prevent re-hospitalization. Pharmacy Practice News. 2008, volume: 35:01.

(8) The Merck Manuals: Online Medical Library. "Improving compliance." 2003.

(9) Medicare Payment Advisory Commission. 2007. Report to the Congress: Promoting Greater Efficiency in Medicare. Washington, DC; Medicare Payment Advisory Commission, p. 103.

(10) Minott, J. "Reducing Hospital Readmissions," Academy Health, January 2008, pp1-10.

Images:

Pill Card - Kripalani S, Robertson R, Love-Ghaffari MH, et al. Development of an illustrated medication schedule as a low-literacy patient education tool. *Patient Education and Counseling* 2007;66:368-77.

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